CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A method for performing event-driven computations on individual phases in a plan, comprising the steps of:

providing cooperating source phases for performing computations, where each of the cooperating source phases include an associated program for performing the computations;

creating at least one target phase from at least one of the cooperating source phases, the at least one target phase performing target phase computations; and

initiating an asynchronous transaction for specific and separate phases of the at least one target phase or the cooperating source phases with a remote agent or another phase such that events can be directed to the specific and separate phases,

wherein the each of the specific and separate phases has the option to wait on completion of a transaction and receipt of a message of external information prior to completion of the computations or the target phase computations, and is capable of identifying the receipt message corresponding to the asynchronous transaction.

2. The method of claim 1, further comprising the step of notifying the cooperating source phases of completion of the target phase computations, wherein, upon notification, the cooperating source phases perform further tasks.

3. The method of claim 2, wherein the cooperating source phases receiving the notification and the at least one target phase sends the notification.

4. The method of claim 1, wherein respective cooperating source phases are dependent on respective target phases of the at least one target phase, and performs the computations after completion of each target phase computation associated with a respective cooperating source phase.

5. The method of claim 1, further comprising the step of receiving timed notification for termination for any pending asynchronous transaction.

6. The method of claim 5, wherein, upon the timed notification, the cooperating source phases perform further tasks.

7. The method of claim 1, further comprising the step of receiving timed notification for termination of the each cooperating source phase.

8. The method of claim 1, further comprising the step of providing event listeners associated with the at least one target phase or the cooperating source phases, the event listeners providing selected ones of the at least one target phase and the cooperating source phases with external event-driven information such that the selected ones of the cooperating source phases and the at least one target phase respond to changes associated with the external event-driven information.

9. The method of claim 8, further comprising the steps of:

sending an external request by a target phase of the at least one target phase; and

routing a message in response to the request via the event listener to the at least one target phase.

10. The method of claim 9, wherein the message is first routed via a dispatcher to a planning coordinator.

11. The method of claim 10, wherein the message includes planning address information that identifies (i) the planning coordinator, (ii) phase and (iii) event listener for routing the message.

12. The method of claim 1, wherein the each cooperating source phase and each of the at least one target phases executes independently of each other.

13. The method of claim 1, further comprising the step of retracting one of the at least one target phases.

14. A system for performing event-driven computations on individual phases in a plan, comprising:

means for providing cooperating source phases for performing computations, where each of the cooperating source phases include an associated program for performing the computations;

means for creating at least one target phase from at least one of the cooperating source phases, the at least one target phase performing target phase computations; and

means for initiating an asynchronous transaction for specific and separate phases of the at least one target phase or the cooperating source phases with a remote agent or another phase such that events can be directed to the specific and separate phases,

wherein the each of the specific and separate phases has the option to wait on completion of a transaction and receipt of a message of external information prior to completion of the computations or the target phase computations, and is capable of identifying the receipt message corresponding to the asynchronous transaction.

15. The system of claim 14, further comprising means for routing the message of external information to one of the cooperating source phases or one or more of the at least one target phases.

16. The system of claim 15, wherein the means for routing includes:

a dispatcher;

at least one router, the dispatcher providing the message of external information to a predetermined one of the at least one router based on message information associated with the message the of external information; and

at least one planning coordinator, the predetermined router providing the message of external information to a predetermined one of the at least one planning coordinator based on the message information associated with the message of external information,

wherein the predetermined planning coordinator provides the message of external information to an event listener associated with one of the cooperating source phases or the at least one target source form completion.

17. A machine readable medium containing code for performing event-driven computations on individual phases in a plan, the code implementing the steps of:

providing cooperating source phases for performing computations, where each of the cooperating source phases include an associated program for

performing the computations;

creating at least one target phase from at least one of the cooperating source phases, the at least one target phase performing target phase computations; and

initiating an asynchronous transaction for specific phases of the at least one target phase or the cooperating source phases with a remote agent or another phase such that events can be directed to the specific phases,

wherein the each of the specific phases has the option to wait on completion of transaction and receipt of a message of external information and is capable of identifying the receipt message corresponding to the asynchronous transaction.